REMARKS/ARGUMENTS

Claims 95—98, 100, 102, 108, 110 and 112 are active in this case.

Support for the amendment to Claim 95 is found in Claim 99 as well as the specification on page 9, last paragraph.

The specification is amended to insert a substitute Title.

Amended Drawings listing the panel numbers noted in the specification are also provided.

The claims of this application are directed to methods of obtaining human osteoblasts, osteoclasts, and/or T cells with enhanced biological function which comprises enhanced replicative ability. Those cells are cultured under certain conditions as defined in the claims. As discussed in the specification, an advantage of the present invention is the discovery that culturing cells, including osteoblasts, osteoclasts and/or T-cells, one can obtain a population of cells with enhanced replicative and/or biological function making these cells particularly useful for therapeutic applications such as tissue repair, e.g., bone repair and others.

In the Office Action, the Examiner has raised new rejections over a Blood publication in 1997 by Smith and U.S. patent no. 5,994,126. A similar rejection was raised in Applicants copending application 10/668,214 which is a direct continuation of the present application. As noted in that copending case, a Declaration of Alan Smith, one of the named inventors of the present application and an author on the Smith et al Abstract cited in the rejection on page 7 was provided. A copy of that signed Declaration is now made of record in the present case and even though the Declaration specifically identifies the child case, as the facts are the same, it is equally applicable in the present case. As attested to by Mr. Smith in his Declaration, authors Gorgas, Jensen, Hastie and Brott were working under the direction and supervision of the named inventors of this application. Therefore, as the Smith et al

publication is not believed to be a disclosure by another, and Smith et al is part of the basis for the rejection under 35 USC 103(a), Applicants request that this rejection be withdrawn.

The claims of this application have also been rejected as claimed obvious subject matter over the claims in U.S. Patent No. 6,835,566. However, as the claims of the '556 patent are directed to dendritic cells and the claims define other cell types, it is believed that the rejection is no longer applicable. Indeed, dendritic cells are a special type of antigen-presenting cell (APC) that activates T lymphocytes as conventionally known in the field and therefore differ from osteoblasts, osteoclasts and T-cells as defined in the pending claims of this application. In any case, a Terminal Disclaimer has already been made of record in this case (March 13, 2006 filing).

Withdrawal of this rejection is requested.

The claims based on an alleged lack of enablement for obtaining cells with enhanced biological function. In this regard, in the paragraph bridging pages 2-3, the Examiner alleges that the specification only enables the culturing of human T lymphocytes with enhanced replicative potential. First, Applicants appreciate the Examiner's indication that the specification enables obtaining human T-lymphocytes with enhanced replicative potential. Following on the Examiner's indication, Applicants have amended the claims to include this as an enhanced biological function of the human cells obtained.

In addition, the claims have been amended to define the cells as other options, osteoclasts and/or osteoblasts. While the specification does not specifically include data demonstrating that these cell types are also successfully cultured to have enhanced replicative potential and/or biological function, the specification does discuss these cell types and these enhanced properties (see e.g., page 7, last paragraph and page 9, last paragraph). As

experimental evidence that this is indeed the case, Applicants submit herewith a signed Declaration by one of the named inventors, Douglas Smith. In this Declaration, Mr. Smith discusses work performed in Aastrom (the assignee of this case), demonstrating that enhanced replicative potential of osteoclasts and osteoblasts were obtained when human bone marrow mononuclear cells were cultured as described in the specification.

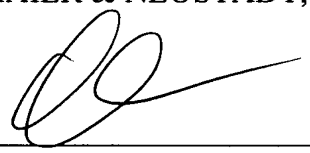
In view of this discussion, Applicants requests withdrawal of the enablement rejection.

Applicants also request a notice of allowance confirming the allowability of all pending claims.

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, he is encouraged to contact Applicants' undersigned representative at the below listed telephone number.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Daniel J. Pereira, Ph.D.
Registration No. 45,518

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 06/04)